

# Work Order ID 79505

\*79505\*

Thursday, January 26, 2012 2:35:40 PM

Ship tomorrow Monday Page 1

Item ID: D412-702-027

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID: U/R

Item Name: 4-Man Side Facing Shoulder Harness, 4 point

Stop \*NS2\*

Start Date: 1/26/2012 Start Qty: 1.00 \*1\*

Cust Item ID:

Required Date: 1/27/2012 Req'd Qty: 1.00 \*1\*

Customer:

Reference:

Approvals: Process Plan: *mr*

Date: 12-01-26 Tooling:

Date:

Run Start \*NR1\*

QC:

Date: SPC (Y/N):

Date:

Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description   | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr                       | Revision Nbr   |                      |         |        |              |               |               |                  |                |
| IIN-D412-702                   | E  |                      |         |        |              |               |               |                  |                |
| 100                            |  | 0.00                 |         |        |              |               |               |                  |                |
| *100*                          | DOCUMENT CONTROL   |                      |         |        |              |               |               |                  |                |
| DC                             | Memo   | 0.00                 |         |        |              |               |               |                  |                |
| Document Control               | Photocopy bluefile and create labels per PPP D412-702-027 CHG002 |                      |         |        |              |               |               |                  |                |
| 110                            | Pick Kit   | 0.00                 |         |        |              |               |               |                  |                |
| *110*                          |  |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo   | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      |  |                      |         |        |              |               |               |                  |                |
| 120                            | QC4- 100% Inspect kits for completeness                          | 0.00                 |         |        |              |               |               |                  |                |
| *120*                          |  |                      |         |        |              |               |               |                  |                |
| QC                             | Memo   | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |  |                      |         |        |              |               |               |                  |                |

5/26/130

For MJS 12-1-27

12/1/30

5/26/130

Ⓢ

# Dart Aerospace Ltd

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 79505

**\*79505\***

Page 2

Thursday, January 26, 2012 2:35:40 PM

Item ID: D412-702-027 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: U/R Stop **\*NS2\***  
Item Name: 4-Man Side Facing Shoulder Harness, 4 point  
Start Date: 1/26/2012 Start Qty: 1.00 **\*1\*** Cust Item ID:  
Required Date: 1/27/2012 Req'd Qty: 1.00 **\*1\*** Customer:  
Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start **\*NR1\***  
QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                               | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 130                            | Packaging  | 0.00                 |         |        |              |               |               |                  |                |
| <b>*130*</b>                   |  |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo   | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      | Identify and pack for shipping as per PPP D412-702-027 |                      |         |        |              |               |               |                  |                |
|                                | Location: _____  |                      |         |        |              |               |               |                  |                |
|                                |  | <i>Rev B</i>         |         |        |              |               |               |                  |                |
| 140                            | QC21- Final Inspection - Work Order Release            | 0.00                 |         |        |              |               |               |                  |                |
| <b>*140*</b>                   |  |                      |         |        |              |               |               |                  |                |
| QC                             | Memo   | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |  |                      |         |        |              |               |               |                  |                |

*12/1/30*

*12/1/30*

*12-01-30*

# Dart Aerospace Ltd

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, January 26, 2012 2:35:39 PM

Page 1

Work Order ID: 79505

Parent Item: D412-702-027

Parent Item Name: 4-Man Side Facing Shoulder Harness, 4 point

Start Date: 1/26/2012

Required Date: 1/27/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP A05.09.01 New issue KJ/JLM  
 IPP Rev: B06.04.03 As per DSI9324 JLM  
 IPP Rev: C As per DSI9351 07-03-14 JLM  
 IPP Rev: D 07-07-28 As per Rev E JLM Verified By: EC  
 IPP Rev: E Remove Manufact 08-05-13 JLM Verified By: DD  
 IPP Rev: F 11.05.31 dsi 9559 EC verified by: JLM  
 IPP Rev: G 11.06.01 revised pick list EC verified by: JLM

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand  | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|-----------------|-------------|--------------|---------------|----------------|--------|
| D4387-041<br>Harness Assembly   |                        | Manufactured  | No          |                     |                  | 110             | Each               | 33.0000         | 4           | 4            |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  | <u>Loc Qty</u>  |                    | <u>Loc Code</u> |             |              |               |                |        |
|                                 |                        |               |             | quar                |                  | 5               |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 72273               |                  | 5               |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | ST263               |                  | 28              |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 77490               |                  | 1               |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 77953               |                  | 27              |                    |                 |             |              |               |                |        |
| D412-702-069<br>Grommet         |                        | Manufactured  | No          |                     |                  | 110             | Each               | 0.0000          | 1           | 1            |               |                |        |
| D3196-3<br>Bar                  |                        | Manufactured  | No          |                     |                  | 110             | Each               | 2.0000          | 1           | 1            |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  | <u>Loc Qty</u>  |                    | <u>Loc Code</u> |             |              |               |                |        |
|                                 |                        |               |             | ST260               |                  | 2               |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 77746               |                  | 2               |                    |                 |             |              |               |                |        |
| D3196-4<br>Bar                  |                        | Manufactured  | No          |                     |                  | 110             | Each               | 0.0000          | 1           | 1            |               |                |        |
| D3551-11<br>Hook and Loop Tie   |                        | Manufactured  | No          |                     |                  | 110             | Each               | 0.0000          | 4           | 4            |               |                |        |
| MS24694-S152<br>Screw           |                        | Purchased     | No          |                     |                  | 110             | Each               | 45.0000         | 6           | 6            |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  | <u>Loc Qty</u>  |                    | <u>Loc Code</u> |             |              |               |                |        |
|                                 |                        |               |             | ST290               |                  | 45              |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 116440              |                  | 1               |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 119108              |                  | 44              |                    |                 |             |              |               |                |        |

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, January 26, 2012 2:35:40 PM

Page 2

Work Order ID: 79505

Parent Item: D412-702-027

Parent Item Name: 4-Man Side Facing Shoulder Harness, 4 point

Start Date: 1/26/2012

Required Date: 1/27/2012

Start Qty: 1.00

Required Qty: 1.00

MS24694-S154  
SCREW

Purchased No

110 Each 34.0000

6 12/1/30 6

SP

Location

Loc Qty

Loc Code

ST290

34

119022

34

6

# Dart Aerospace Ltd

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



| QTY<br>-021 | QTY<br>-023 | QTY<br>-025 | QTY<br>-027 | QTY<br>-029 | QTY<br>-035 | Part Number  | Description  |
|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--|
| X           |             |             |             |             |             | D412-702-021 | Dart 13-Man Shoulder Harness Kit, 4-point                              |
|             | X           |             |             |             |             | D412-702-023 | Dart 5-Man Forward Facing Shoulder Harness Kit, 4-point                |
|             |             | X           |             |             |             | D412-702-025 | Dart 4-Man Aft Facing Shoulder Harness Kit, 4-point                    |
|             |             |             | X           |             |             | D412-702-027 | Dart 4-Man Side Facing Shoulder Harness Kit, 4-point                   |
|             |             |             |             | X           |             | D412-702-029 | Dart 1-Man Forward Facing Shoulder Harness Kit, 4-point                |
|             |             |             |             |             | X           | D214-702-035 | Dart 5-Man Aft Facing Shoulder Harness Kit, 4-point, for Bell 214B/B-1 |
| 1           | 1           |             | 1           | 1           |             | D412-702-069 | GROMMET KIT  |
| 2           | 2           |             |             |             |             | D3195-041    | BRACKET  |
| 2           | 2           |             |             |             |             | D3195-043    | BRACKET  |
| 1           | 1           |             |             | 1           |             | D3196-1      | BAR  |
| 1           |             |             | 1           |             |             | D3196-3      | BAR  |
| 1           |             |             | 1           |             |             | D3196-4      | BAR  |
| 2           | 2           |             |             |             |             | D3197-041    | BAR  |
| 4           |             | 4           |             |             |             | D3198-1      | FITTING  |
| 2           | 2           |             |             |             |             | D3268-1      | PLACARD  |
| 9           | 5           |             | 4           | 1           |             | D3446-041    | HARNESS ASSEMBLY, 4 POINT  |
| 4           |             | 4           |             |             |             | D3446-043    | HARNESS ASSEMBLY, 4 POINT  |
|             |             |             |             |             | 5           | D3446-045    | HARNESS ASSEMBLY, 4 POINT  |
| 13          | 5           | 4           | 4           | 1           | 5           | D3551-11     | HOOK AND LOOP TIE  |
| 2           | 2           |             |             |             |             | D3546-1      | CLIP   |
| 4           |             | 4           |             |             |             | AN4-5A       | BOLT   |
| 4           | 4           |             |             |             |             | AN4-13A      | BOLT   |
| 8           |             | 8           |             |             |             | AN4-20A      | BOLT   |
| 20          |             | 20          |             |             |             | AN960JD416   | WASHER (OR NAS1149D0463J)  |
| 12          |             | 12          |             |             |             | MS21042L4    | NUT (OR MS21042-4)   |
| 8           | 2           |             | 6           | 2           |             | MS24694-S152 | SCREW  |
| 8           | 2           |             | 6           | 2           |             | MS24694-S154 | SCREW  |

| QTY<br>-069 | Part Number  | Description   |
|-------------|--------------|---------------|
| X           | D412-702-069 | GROMMET KIT   |
| 24          | D3619-2      | GROMMET       |
| 1           | D3619-2T1    | HOLE PUNCH    |
| 1           | D3619-2T2    | STRIKER BLOCK |
| 1           | D3619-2T3    | PUNCH         |
| 1           | D3619-2T4    | DIE           |

## REFERENCE ONLY

# DART SERVICE INSTRUCTION

TO AMEND IIN-D412-702-1 REV. A,  
AND ICA-D412-702 REV. 4 OR EARLIER APPROVED REVISIONS

REF. TCCA STC: SH04-7  
REF. FAA STC: SR01997NY  
REF. EASA STC: EASA.IM.R.S.00710

### PURPOSE

The purpose of this DSI is to outline the replacement of existing D3446-041/-043 Shoulder Harnesses with the new and improved D4387-041/-043 Shoulder Harnesses.

### CHANGE

For the following Kits, the D4387-041 and D4387-043 Shoulder Harnesses respectively replace the D3446-041 and D3446-043 Shoulder Harnesses as follows:

| Old Harness P/N | Used On      | New Harness P/N | Effectivity            |
|-----------------|--------------|-----------------|------------------------|
| D3446-041       | D412-702-021 | D4387-041       | CHG 003 and subsequent |
|                 | D412-702-023 |                 | CHG 002 and subsequent |
|                 | D412-702-027 |                 |                        |
|                 | D412-702-029 |                 |                        |
| D3446-043       | D412-702-021 | D4387-043       | CHG 003 and subsequent |
|                 | D412-702-025 |                 | CHG 002 and subsequent |






Customers who want to upgrade their shoulder harnesses may replace their existing D3446-041/-043 with D4387-041/-043 per this service instruction.

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

**APPROVED**

BY:   
D. SHEPHERD (DE # 02)

DATE: 11.05.09  
CERT. NO.: SH04-7  
ISSUE NO.: 3

|            |   |  |              |
|------------|---|--|--------------|
| A          | NEW ISSUE   | MB   | 11.05.09     |
| REV.       | DESCRIPTION   | BY   | DATE         |
| DESIGN     |  | <b>DART AEROSPACE LTD</b>  |              |
| DRAWN      |  | HAWKESBURY, ONTARIO, CANADA  |              |
| CHECKED    |  | DRAWING NO.  | REV. A       |
| MFG. APPR. | N/A   | DSI 9559   | SHEET 1 OF 1 |
| APPROVED   |  | TITLE  | SCALE        |
| DE APPR.   |  | HARNESS CHANGE   | NTS          |
| DATE       | 11.05.09  | <small>COPYRIGHT © 2011 BY DART AEROSPACE LTD<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> |              |